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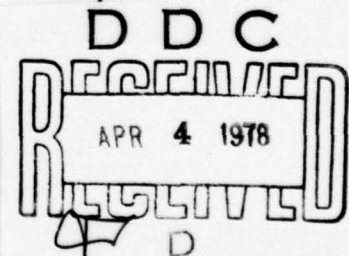


PROGRAM MANAGEMENT COURSE INDIVIDUAL STUDY PROGRAM

THE STYLES OF AIR FORCE
PROGRAM MANAGEMENT

Study Project Report
PMC 77-2

Richard C. Paschall, Jr.
Major USAF



FORT BELVOIR, VIRGINIA 22060

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DEFENSE SYSTEMS MANAGEMENT COLLEGE

STUDY TITLE: THE STYLES OF AIR FORCE PROGRAM MANAGEMENT

STUDY PROJECT GOALS:

To determine the prevalent management styles used by Air Force program managers and to identify the key factors that influence the management styles.

STUDY REPORT ABSTRACT:

The purpose of this project was to discover the relationships between management styles and acquisition program phenomena, such as program phase, technology, and the socio-political environment in USAF major weapon system programs. Using a structured interview, the author interviewed 10 senior Air Force program managers who managed some of the largest programs. Half of the managers had a self-perceived basic management style oriented to High Task/High Relationship activity and a back-up style oriented to Low Task/High Relationship activity. The other half of the program managers had a basic Low Task/High Relationship style and a back-up High Task/High Relationship style. The interview results demonstrated a difference between the managers' perceived styles when working with program functions and the managers' perceived styles determined by the Leader Effectiveness and Adaptability Description (LEAD)-Self instrument.

SUBJECT DESCRIPTORS:

Program/Project Management, Career Development (10.02.06)
Organizational Behavior, Perception, Self Image (10.03.02.03)

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Study Project Report

Program Management Course

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EXECUTIVE SUMMARY

Through interviews with 10 senior Air Force program managers of major weapon system acquisitions, the author identified several important relationships between the program manager and the system program office (SPO), between the program manager and 10 socio-political factors, and between the program manager and functions/organizations both internal and external to the SPO. Most USAF program managers are highly influenced by the following factors: technical risk of the program, and cost/budget austerity. All of the program managers exhibit management styles classified as "selling" (high task/high relationship) or "participating" (Low task/high relationship) and, therefore, follow the trend of most managers in the United States. The manner in which the program manager believes that he interfaces with key program functions is generally not consistent with the manager's perceived leadership style as measured with the LEAD-Self instrument. The report concludes that most senior USAF program managers are in tune with their environments and are keenly aware of the needs of their SPO personnel.

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THE STYLES OF AIR FORCE PROGRAM MANAGEMENT

The procurement of Air Force weapon systems involves a specialized form of leadership called management, which is the accomplishment of organizational goals by working with and through individuals and groups. Managers of these weapon systems programs work in environments peculiar to the defense business because of Congressional attention and public visibility. However, these managers have significant responsibilities and must depend not only on personal drive and competence but also on other people. These managers are greatly influenced by a number of factors both internal and external to their program management organizations. This paper presents several factors which influence the acquisition managers of major USAF weapon systems and summarizes the various styles used by these managers.

The senior military officers and civilians who manage the Air Force acquisition programs are called program managers and their related organizations are known as system program offices (SPOs). These program managers are responsible for the development and procurement of a wide variety of systems and equipment, ranging from ammunition (including "smart bombs") to major systems (such as the F-16 international fighter aircraft and the M-X mobile intercontinental ballistic missile). The management of these SPOs has been compared to the general management of a small company.¹ However, the term "small" is relative. For example, the F-16 program involves USAF

expenditures of \$8 billion (for acquisition only) over a 15-year period and working relations with several European countries in a co-production arrangement.²

To effectively manage these major programs, the program managers must rely on skill and personality, which are reflected in each individual's management style. Management or leadership styles can be categorized as authoritarian, democratic and laissez-faire or as combinations of concern for tasks and concern for people. Common among the various assessments of style is the belief that the manager should be flexible and adaptable, adopting a particular style to fit the specific situation.^{3&4}

Based upon the current knowledge about the relationship between management style and effectiveness, several questions about managers of Air Force weapons systems were asked. How do the program managers manage? What factors influence the managers? How adaptive and flexible are the managers?

To answer these questions, data were gathered through structured interviews with eight of the 62 USAF program managers who are responsible for the more significant programs and with two former managers of major programs.⁵ Eight program managers were responsible for eight of the 17 Air Force programs considered to be of such importance as to require regular review by the Secretary of the Air Force. Within the constraints of time and the availability of the individuals, a representative cross-section of programs was selected to provide a reasonable baseline for making inferences about the prevalent styles of Air Force program managers. Table 1 presents

the variety of program types and acquisition phases represented by the 10 program managers.

TABLE 1
RELATIONSHIP OF PROGRAM MANAGERS TO SYSTEM TYPE
AND ACQUISITION PHASE

PROG MGR	SYSTEM TYPE						ACQ PHASE			
	AIRCRAFT	MISSILE	SAT' LITE	COMMUN	MUNITION	SUPPORT	CONCEPT	VALID	FSFD	PROD
1	X								X	
2					X			X	X	X
3						X	X	X	X	X
4	X									X
5	X							X	X	
6	X								X	X
7		X						X		
8			X						X	X
9			X						X	X
10	X			X					X	

The interview questions were grouped into three areas. The first area determined each program manager's perception of the SPO and the manager's role within it. The second area examined the influence of internal

and external factors on the manager's style. The third area extracted the program manager's self-perceived leadership style and how each manager has applied that style to the various functions which make up the program management team.

THE SYSTEM PROGRAM OFFICE

Although the operation of the system program office (or SPO) is primarily dependent on the people and secondarily dependent on the external organizations with which it interfaces, no single person influences the effectiveness more than the program manager. Conversely, the program manager's style is influenced by the character of the program office, the people in the program, and the SPO's role in the acquisition of the system.

Because the program manager's self-perceived major task is a reflection of the total program, the program managers were asked to identify the major task in each of the 10 programs. Five of the 10 managers stated that the application of resources was the major task. These managers defined the application of resources as the effective use of the people and money available to solve the many problems that can block successful acquisition of the system. For one manager, this task was complicated by a diverse program involving three models of the particular weapon, each in a different acquisition phase-varying from validation to production/deployment. To control such a broad program, this program manager appointed three deputies, each one responsible for a model of the weapon.

Another manager illustrated the problem with resources by identifying several minor tasks, such as a problem contractor, one program with budget problems and another program pushing technology with the normal attendant difficulties. Additionally, this manager gave great importance to the general task of developing people, many of whom were newly assigned and inexperienced in program management.

Although no manager professed an abundance of either people or money, two managers indicated that scoping the programs took precedence as the major task. One of the two managers stated that the program manager must have the "vision" for the program. The program manager must know where the program is going and must communicate this "vision" to the subordinates as well as to the commanders and staff assistants at all levels above the SPO. This knowledge is necessary for the headquarters commanders to properly structure the guidance and for the program personnel to properly structure the program for effective implementation of that guidance.

Because the people in the SPO are the make-or-break resource, eight of the 10 program managers personally recruited either most of the SPO personnel or the key staff managers (the deputy program manager, program control director, or chief engineer). Citing the current sensitivity of the officer evaluation process, one program manager acknowledged, "It's not fair to have all 'fast burners'--not fair to the individuals or to other organizations."⁶ Another manager stated that the military personnel office selected the people to man that SPO based on program guidelines. According to this the manager, the selected personnel have been satisfactory.

Expanding on the concept of the SPO organization and the manager's self-perceived function, each interviewee was asked to identify one main strength and one main weakness as a program manager (Table 2). The significant groupings indicate that seven of the ten managers have strengths in areas directly involving people or working through people (the areas of people interrelations and business strategy in Table 2) as opposed to areas oriented to functional disciplines (the areas of engineering, financial management, contracts, and maintenance/logistics). Conversely, the major areas of weakness were perceived to be in specific functional disciplines instead of broad, "people" areas.

TABLE 2

RELATIONSHIP OF AREAS OF MAJOR STRENGTH AND WEAKNESS

AREA	NUMBER OF PM's INDICATING	
	STRENGTH	WEAKNESS
Engineering/technical	2	2
Test & Evaluation	1	1
Financial Management	0	2
Business Strategy	3	0
Contracts	0	2
Maintenance/Logistics	0	2
People Interrelations	4	1

To supplement the capabilities of each manager, all but one of the

interviewees hired either an experienced deputy or qualified key staff persons. Two managers hired management consultants. Several managers stated that the programs were too large for the program manager to manage everything; the manager must rely on key people in whom the manager has confidence. Another manager valued potential over experience in the selection of key people to complement the program manager's capabilities.

The author continued the examination of the program manager-SPO interface by questioning the program managers about the manner in which the SPOs worked everyday tasks and crisis situations, and about the configuration control board (CCB). (The CCB is the key internal management device for controlling changes to a program once a baseline is established). Seven of the 10 managers assigned and monitored everyday tasks through the supervisors, either at frequent staff meetings or through internal operating procedures. Five of those seven managers also chaired the CCB meetings and made the decisions. On the other hand, the other three managers set guidelines for everyday tasks and the SPO staffs worked the problems. The same three managers also set guidelines for the operations of the CCBs, appointed a CCB chairman, and had very little to do with the CCB operation. However, those three managers retained veto power over the decisions.

Crisis situations were generally handled differently from the everyday problems. Usually the crisis situation was defined as the "four o'clock telephone call" from the Pentagon staffer during budget mark-up time, requesting program impact data for a 20 percent cut in the next year's funding,

or a key contractor calling to report a significant test failure which would create a six-month schedule slip. Two of the program managers approached these situations in the same manner as for normal tasks: assign and monitor through the supervisors. Five of the managers worked crisis problems directly with the SPO staffs. Two managers took a very direct, personal interest in crisis problems by assigning those problems directly to the persons most capable of working the problem and then monitoring progress directly, thereby bypassing any intermediate managers. Only one program manager personally worked "hot" problems with the key individual.

Although several behavioral scientists have indicated that style adaptive managers are more effective, these scientists have indicated a difference between successful versus effective leadership.⁷ Management of everyday tasks as opposed to crisis situations appears to be analogous to working toward long-term versus short-term effects. Hersey and Blanchard caution that if the manager's style is incompatible with the expectations of the subordinates, the short-term result may be increased output or activity, but the long-term result could be a deteriorating organizational climate.⁸ The inference is clear: the manager who continually bypasses the intermediate managers and works directly with subordinates risks loss of loyalty and reduction of morale, particularly in those intermediate managers.

Expanding on the management of tasks, two program managers embraced management by exception because these managers did not believe that a program manager could or should manage the details of every problem in the

program. Those managers further agreed on the need to establish a management information system (MIS) within the SPO to sense the big problems and to allow decentralized decision-making.

Another manager was a "firm believer in delegation of authority," desiring "to help my people grow, to mature, so that someday they can replace me." This manager stated, "People must recognize that they have a piece of the action carved out for them, that they are partly responsible, that they are accountable."⁹

Two interviewees had changed the way in which tasks and decisions had been made under the previous managers. Both program managers indicated that their predecessors had made all of the decisions in the program and, consequently, the subordinates were immature in decision-making. Those two interviewees decentralized the decision-making process, allowing and encouraging decisions to be made at the lowest level where the necessary expertise existed.

The final question involving the operation of the SPO concerned sensitive or peculiar personnel situations. Each interviewee cited an example of this type, such as a disgruntled project officer, or a person with a marital problem, or a secretary who had difficulty working with others. Nine out of the 10 interviewees encouraged SPO subordinates to use the chain of command for personal problems, but kept the door open for those who did not have confidence in being able to resolve difficulties with the immediate supervisors. Only one program manager adopted

a policy which encouraged subordinates to bring problems to the front office first.

Most of the program managers recognized the value of creating an organization compatible with the program manager's style. The majority attempted to attain congruence by selecting the key people and by establishing management systems (the CCB and the MIS) which provided the desired flexibility and control to match the manager's style, the people, and the program. The general tendency toward greater emphasis on management capabilities and the recognition of the need to work through people was indicated by the identification of people-related tasks and the major areas of management strengths. However, the structure of the SPO and the style of the program manager were greatly influenced by other factors, both internal and external to the SPO.

INTERNAL AND EXTERNAL FACTORS

Based on seven years of experience in two different SPOs (a 300-man aircraft program office during full-scale development and a 30-man satellite program office during concurrent development/production), the author selected 10 factors which significantly influence the management of many programs. Four of these factors (the first four factors in Table 3) are primarily internal to the program office and six are external. Using a scale from 1 to 10 (low influence to high influence), each manager indicated the relative degree of influence of each factor. The individual ratings were statistically averaged and confidence intervals constructed

using a "student 't'" distribution to account for a small sample size (10 managers) and an unknown population standard deviation.

The assumption of a relatively large population of program managers is not unreasonable considering (a) that the Air Force has 62 active programs of significance and that each of these programs has a program manager and a deputy program manager, (b) that many former program managers now serve in various staff and command functions, and (c) that many officers and civilians who serve in key management positions in SPOs possess the experience and training to be program managers. In Table 3, Factors 4, 7, 8, 9 and 10 have large confidence intervals relative to the value of the means and exhibit a relatively wide variation in ratings by the interviewees. However, Factors 1, 2, 3, 5 and 6 demonstrate reasonable agreement among the program managers, suggesting reasonable validity in inferring that those five factors greatly influence the total population of Air Force program managers.

PERCEIVED STYLE

The interaction of the program manager with the external and internal factors (Table 3) influenced the program manager's perceived style of managing or leading. To identify the various leadership styles, the Situational Leadership Theory and the related Leader Effectiveness and Adaptability Description (LEAD-Self) were used to assess how the program managers interface with program functions, both internal and external to the SPO, and to measure the managers' self-perceived leadership styles.¹¹

TABLE 3

RELATIVE INFLUENCE OF FACTORS ON MANAGEMENT
STYLE (BASED ON ASSESSMENT OF LOW TO HIGH
INFLUENCE ON A SCALE FROM 1 TO 10)

<u>FACTOR</u>	<u>MEAN</u>	<u>STD DEV</u>	<u>90% CONF INTERVAL</u>
1. Technical Competence of Subordinates	8.6	1.2	8.6 \pm .7
2. Psychosocial Needs of Subordinates	8.3	1.4	8.3 \pm .8
3. Technical Risk of Program	8.2	1.4	8.2 \pm .8
4. Task Maturity of Subordinates	6.3	2.8	6.3 \pm 1.6
5. Cost/Budget Austerity	8.3	2.1	8.3 \pm 1.2
6. User Demands/Priorities	7.0	2.1	7.0 \pm 1.2
7. Headquarters' Involvement	6.5	2.8	6.5 \pm 1.6
8. Congressional Visibility	5.7	2.6	5.7 \pm 1.5
9. USAF Personnel Policies	5.2	2.5	5.2 \pm 1.5
10. Program Manager's Boss	3.8	2.6	3.8 \pm 1.5

NOTE: Averages and confidence intervals were calculated in
accordance with standard statistical procedures. ¹⁰

The Situational Leadership Theory, represented as a model in Figure 1, was adapted for the purpose of determining how the program managers viewed key elements of the program management team. The program manager has direct control over some of the elements and indirect control, at best, over others. Each program manager indicated the task maturity of each function and the resulting management approach by using the model to locate the particular style appropriate for each function. Table 4 lists the results of the selections by nine of the 10 program managers with identification of the appropriate quadrant for each function (one manager did not complete this part of the interview).

The effectiveness of the leader depends on the leader's ability to apply the particular style appropriate for the individuals involved and for the complexity of each program.¹² Each of the 10 program managers rated the management relationships with the engineering, program evaluation, and procurement functions effective by emphasizing either participative or delegative styles (refer to Figure 1). The ranges of responses for other functions indicate more variability in the relationships and greater adaptability of the program managers' styles. A value range for some management interfaces reflects either multiple elements of each function or a time-sensitive relationship for which the program manager was reluctant to specify only one style (e.g., in Table 4, manager #5 had several contractors, ranging from low task maturity requiring very directive, task-oriented management, to high task maturity, allowing a very

FIGURE 1

SITUATIONAL LEADERSHIP THEORY

(From Management of Organizational Behavior: Utilizing Human Resources, by P. Hersey and K. Blanchard, 1977. Copyright 1977 by Prentice-Hall, Inc., and reproduced by permission.)

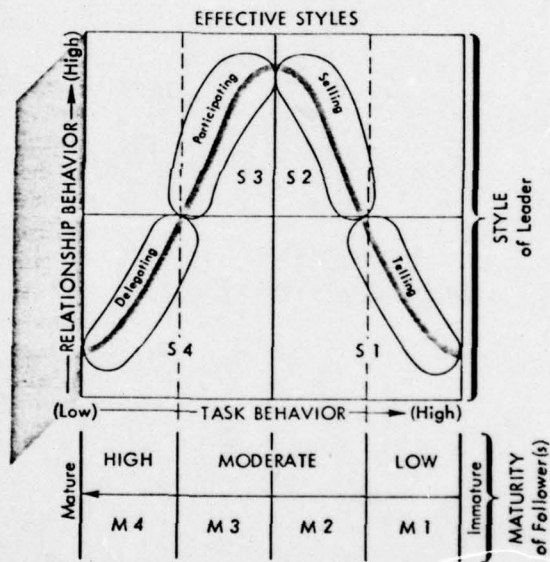


TABLE 4

RELATIONSHIP OF PROGRAM MANAGER STYLES TO
PROGRAM FUNCTION/ORGANIZATIONS USING
SITUATIONAL LEADERSHIP THEORY QUADRANTS (1-4)

FUNCTIONS/ORGANIZATIONS	QUADRANTS 1-4 TO PROGRAM MANAGERS (Program managers by number)									
	1	2	3	4	5	6	7	8	9	10
Plant Representative	4	4	1	3	1-2		3	1	1	2
Comptroller	4	4	3	4	3-4		2	3	3	2
User	4	4	3	3	2-3		3	2	2	2
Contractor	3	1-4	1-3	2	1-4		3	3	3	3
Training Command	-	4	3	4	2		4	-	3	3
Procurement	4	4	3	4	4		3	3	4	4
Logistics	4	4	2	2	3-4		3	-	4	1-3
Test & Evaluation	3	4	2	3	1-3		3	3	4	4
Configuration Mgt	4	4	3	2	3-4		3	4	4	4
Program Evaluation	4	4	3	4	4		3	4	4	3
Financial Mgt	3	4	2	3	3-4		3	3	4	2
Engineering	4	4	4	4	4		4	3	4	4

low management profile).

After indicating the functional management interfaces, the program managers revealed individual perceptions of personal leadership styles using the LEAD-Self instrument. Briefly, this instrument presents the individual with 12 situations and four alternative actions for each. The situations relate to the four primary categories of task maturity and the responses relate to the four quadrants of leadership styles in the Situational Leadership Theory. The instrument is designed to measure style, style range, and style adaptability. The LEAD-Self instrument measures only the self-perception of the leader and thus, reflects only perceived leadership styles for the situations.

Although the instrument is designed to measure style effectiveness, the authors of the instrument suggest that the most significant result is an indication of the perceived basic leadership style.¹³ Style range can indicate, to some degree, the amount of flexibility in behavior. Likewise, to a lesser extent, style adaptability can indicate the leader's ability to apply the most effective style in a given situation. The instrument authors caution that no data exist to correlate the effectiveness or adaptability score and the effectiveness of the leader in a given position.

The results of the LEAD-Self instrument, as taken by eight of the 10 program managers, are illustrated in Figure 2. (Because of time limitations, two managers did not complete the instrument.) The responses of

FIGURE 2

LEAD-SELF INSTRUMENT RESULTS

PROGRAM MANAGERS BY NUMBER	STYLE BY QUADRANT				STYLE ADAPTABILITY (-24 TO+24)
	1	2	3	4	
	HT LR	HT HR	LT HR	LT LR	
1		Y	X	Y	+ 11
2		Y	X		+ 8
3	Y	Y	X		+ 9
4		Y	X		+ 18
5	Y	X	Y		+ 17
6					
7	Y	X	Y		0
8	Y	X	Y		+ 10
9					
10		X	Y		+ 13
<p>NOTE: "X" represents the <u>basic</u> or predominant style</p> <p>"Y" represents the <u>back-up</u> style(s)</p> <p>"HT" is High Task</p> <p>"LT" is Low Task</p> <p>"HR" is High Relationship</p> <p>"LR" is Low Relationship</p>					

the managers are expressed in terms of the Situational Leadership Theory. The perceived leadership styles of the program managers who took the instrument are in either Quadrants 2 or 3 (high task/high relationship and low task/high relationship, respectively). The managers with basic styles in Quadrant 2 had back-up styles in Quadrant 3 and vice versa. Most program managers had additional back-up styles, predominately in Quadrant 1 (high task, low relationship). Therefore, the eight program managers had a range of at least two styles and, in five cases, a range of three styles.

Hersey and Blanchard indicate that style range is not as relevant an indicator of effectiveness as is style adaptability.¹⁴ The data in Figure 2 indicate that seven managers demonstrated perceived effectiveness greater than +7 and all eight managers exhibited average effectiveness of +10.75. Hersey and Blanchard report that out of more than 20,000 middle managers from a variety of organizations from some 14 cultures, most (over 83 percent) scored between -6 and +6.¹⁵

CONCLUSIONS

Program managers of major weapon system programs in the Air Force are influenced by a number of factors which demand a variety of management styles. Most program managers are well aware that the SPOs are manned by highly educated, technically competent and dependable people. Most of the program managers did not notice any appreciable difference in management style caused by the particular program or the people in the SPO. One manager stated, "I run the SPO like I ran my F-4 squadron. I haven't

noticed much change in the way I manage."¹⁶ However, two of the managers did institute changes in the management of the SPOs compared to the previous managers. One of the two stated, "Before I came, the program manager made all of the decisions. I decentralized decision-making to as low a level as the expertise exists to make the decision."¹⁷ The other manager cited a task immaturity problem in the SPO and had to restructure the program to make the SPO effective. This program manager also had to get the functional people communicating with the contractor and with each other to build an effective team.

The dissimilarities in the management approaches shown in Table 4 are reflective of the individual styles of each program manager seeking to adapt to the situation of the program and the people. The influence factors demonstrate a relationship with the perceived styles because the managers predominately ranked people and task factors which were closely related to the day-to-day operation of the program as having relatively high influence on management style. For example, "Technical Competence of Subordinates" and "Psychosocial Needs of Subordinates" are very influential on the perceived styles of the program managers (from Table 3). Those two factors are also High Relationship factors when placed in the framework of the Situational Leadership Theory. Also, "Technical Risk of Program" and "Cost/Budget Austerity" are Task Relevant factors and are also highly influential on the managers. These factors tend to support the perceptions of the program managers that the management styles are typically in the High Task/High Relationship and the Low Task/High

Relationship quadrants.

The 2-3 Style, according to Hersey and Blanchard, is the "safe" style, in that the managers with that style are never far away from the appropriate or most effective styles.¹⁸ This 2-3 Style "tends to be the most frequently identified style in the United States and other countries with a high level of education and extensive industrial experience."¹⁹ Hersey and Blanchard continue the analysis of the 2-3 Style by stating that these people "tend to do well working with people of average levels of maturity but find it difficult handling discipline problems and immature work groups (M1) as well as 'delegating' with competent people to maximize their development."²⁰ Program managers apparently are progressing in style from the traditional view of the military leader in Quadrant 1 (High Task/Low Relationship) to a more flexible approach which recognizes the increased educational levels and desires of the professional engineers and managers.

Another significant feature of the interview information is the apparent contradiction between the manager's perception of the interface management of the organizations and functions which make up the management team and the manager's perception of management style from the LEAD-Self instrument. No manager indicated a Quadrant 4 (Low Task/Low Relationship) basic style and only one manager indicated a Quadrant 4 back-up style. Yet, as seen in Table 4, all of the managers indicated at least one Quadrant 4 relationship with the functions and several program managers indicated many Quadrant 4 relationships. The logical conclusions are that

either (a) the LEAD-Self instrument could not adequately measure styles because the situations presented were not readily identifiable to the program managers or (b) the managers' perceptions of the management of those functions were incorrect. Further study, most probably from the point of view of the subordinates of the program managers, could prove fruitful.

The data support the contentions that management of major weapon system acquisitions is complex and depends on and is influenced by a number of factors, mostly related to the people involved in the program. Additionally, the data indicate that military program managers are similar to most managers in the United States (the prevalent 2-3 Style) but appear to be more adaptable (the average effectiveness score of +10.75). The Situational Leadership Theory is useful in analyzing such management and for indicating areas of improvement to increase the effectiveness of Air Force program managers.

APPENDIX

STRUCTURED INTERVIEW QUESTIONNAIRE

1. What is your major task as the program manager?
 - a. Problem contractor
 - b. Budget stability
 - c. New technology
 - d. Decision-making
 - e. Scoping the program
 - f. Significant technical problems
 - g. User satisfaction
 - h. Program Advocacy
 - i. People Development
 - j. Application of Resources
2. How much influence have you exerted in manning your organization?
 - a. Inherited the people
 - b. Picked my key people
 - c. My deputy finds my people
 - d. Picked all my people
 - e. Personnel fills the slots
3. What do you view as your major strength and main weakness as a program manager?

a. Engineering/technical	f. Program Control	k. Advanced Planning
b. Test and Evaluation	g. Contracts	l. People interrelations
c. Financial Mgt	h. PPBS Process	m. User Operations
d. Business Strategy	i. Program Advocacy	n. Contractor relations
e. Production Mgt	j. Maintenance concepts	
4. How have you complemented your capabilities?
 - a. Hired complementing deputy
 - b. Hired GSE/TD Contractor
 - c. Added liaison function
 - d. Hired management consultant
 - e. Trained key staffer(s)

5. How do you manage tasks (Everyday, Crisis)?

- a. Assign directly to worker/monitor directly
- b. Assign directly/monitor through intermediate supervisors
- c. Assign and monitor through supervisors
- d. Set the guidelines and the staff works the problem
- e. Work the problem with the staff
- f. Work the problem with key man
- g. Work the problem alone
- h. Form a group of specialists (outside) to work problem

6. How does you CCB function?

- a. I chair CCB and its meetings and I make decision
- b. CCB chm makes decision and I have veto rights
- c. Set guidelines for CCB but am not really involved

7. How do you handle sensitive or peculiar personnel situations?

- a. Encourage "chain-of-command"
- b. Have "open-door"-come directly to me first
- c. Refer problems to exec or personnel shop
- d. Supervisors handle problems-I am not involved

8. If any event has caused you to change your management perspective since you have been in program management, What was the event and how did you change?

- | | |
|--------------------------------|------------------------------|
| a. Major program redirection | e. Increased detail emphasis |
| b. Significant program problem | f. More participative mgt |
| c. Change in program phase | g. More task direction |
| d. Personal emotional event | |

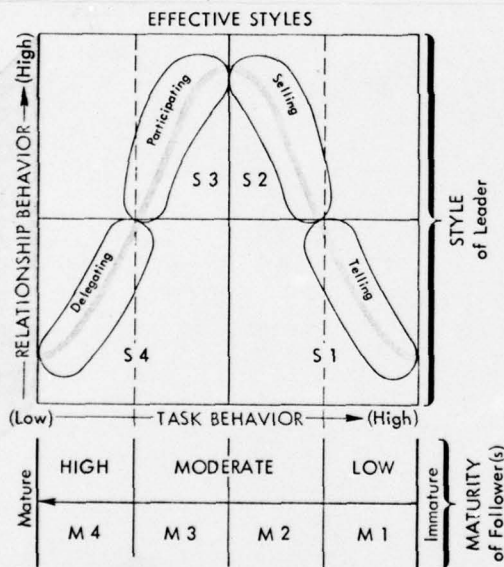
9. On a scale of 1 to 10 (representing low to high in influence), rate the amount of influence that each of the ten listed factors has on the way you manage.

- | | |
|---|----------------------|
| a. Technical Competence of Subordinates | 1 2 3 4 5 6 7 8 9 10 |
|---|----------------------|

b. Technical Risk of Program	1	2	3	4	5	6	7	8	9	10
c. Cost/Budget Austerity	1	2	3	4	5	6	7	8	9	10
d. Congressional Visibility	1	2	3	4	5	6	7	8	9	10
e. Task Maturity of Subordinates	1	2	3	4	5	6	7	8	9	10
f. User Demands/Priorities	1	2	3	4	5	6	7	8	9	10
g. Headquarters' Involvement	1	2	3	4	5	6	7	8	9	10
h. Psychosocial Needs of Subordinates	1	2	3	4	5	6	7	8	9	10
i. USAF Personnel Policies	1	2	3	4	5	6	7	8	9	10
j. Program Manager's Boss	1	2	3	4	5	6	7	8	9	10

10. Rate your method of management of the various elements of the System Program Office:

Referring to the Situational Leadership Theory illustrated in the figure, indicate the system of management that you believe you use with each of the functions/organizations listed. Your style should be one of four possible, as indicated by the quadrants S1-S4 on the figure. Your style may be different for each function. Indicate your choice by writing the quadrant number under the column labeled "STYLE."



STYLE	FUNCTIONS/ORGANIZATIONS
	Plant Representative
	Comptroller
	User
	Contractor
	Training Command
	Procurement
	Logistics
	Test & Evaluation
	Configuration Management
	Program Evaluation
	Financial Management
	Engineering

SITUATIONAL LEADERSHIP THEORY

(From Management of Organizational Behavior: Utilizing Human Resources, by P. Hersey and K. Blanchard, 1977. Copyright 1977 by Prentice-Hall, Inc., and reproduced by permission.)

REFERENCES

1. Introduction to Military Program Management (Washington, D.C.: Logistics Management Institute, 1971), p. 2.
2. Derived from the "F-16 Independent Cost Analysis" prepared by Office of the Secretary of Defense Cost Analysis Improvement Group, October 1977 (Unpublished).
3. Paul Hersey and Kenneth H. Blanchard, Management of Organizational Behavior: Utilizing Human Resources, 3d ed. (Englewood Cliffs, NJ: Prentice-Hall, Inc., 1977), p. 130.
4. Fremont E. Kast and James E. Rosenzweig, Organization and Management: A Systems Approach 2d ed. (New York: McGraw-Hill Book Company, 1974), pp 344-346.
5. Interviews conducted between 24 August 1977 and 7 October 1977:
 - a. BG J. Abrahamson, F-16 Program Manager
 - b. BG J. Brill, A-10 Program Manager
 - c. MG E. Coy, former Fleet Sat Com Program Manager
 - d. BG R. Foster, former Airborne Command Post Program Manager
 - e. COL P. Good, "Maverick" Program Manager
 - f. COL E. Harbour, EF-111A Program Manager
 - g. COL S. Kishline, Advance Medium Short Take-Off Transport Program Manager
 - h. COL C. Markwood, "Simulator" Program Manager
 - i. COL J. McCormick, Defense Support Program Manager
 - j. COL T. Sumner, DOD Space Transport System Program Manager
6. BG Arahamson
7. Hersey and Blanchard, p. 105
8. Hersey and Blanchard, pp 119-122.
9. MG Coy
10. William A. Spurr and Charles P. Bonini, Statistical Analysis for Business Decisions, Revised (Homewood, IL: Richard D. Irwin, Inc., 1973), pp. 49-50, 76-81, 292-295.
11. Hersey and Blanchard, pp 83-132, 225-272.

12. Hersey and Blanchard, pp. 135-137.
13. Hersey and Blanchard, pp. 231-232.
14. Hersey and Blanchard, p. 235.
15. Hersey and Blanchard, p. 231.
16. COL Good.
17. COL Harbour.
18. Hersey and Blanchard p. 249.
19. Hersey and Blanchard, p. 249.
20. Hersey and Blanchard, p. 249.

